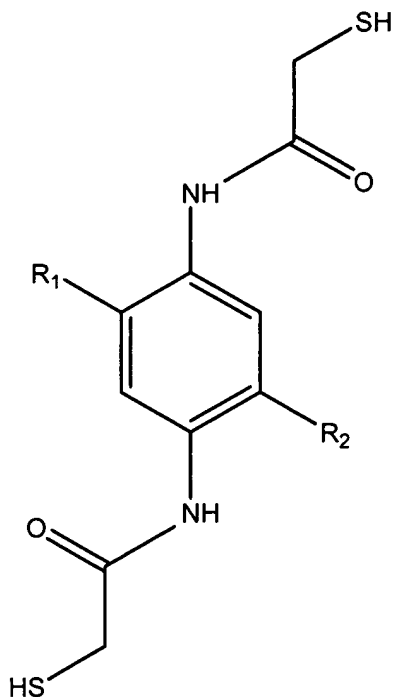


AMENDMENT

IN THE CLAIMS:

1-17. (Cancelled).

18. (New) A 1-, 2- or 3-dimensional assembly of nanostructured units, comprising a multifunctional linker molecule of the formula $\text{CON}_1\text{-FUNC}_1\text{-X-FUNC}_2\text{-CON}_2$, said multifunctional linker molecule comprising a 1,4-dimercaptoacetamidobenzene of the formula:



wherein R₁ and R₂ are independently selected from CH₃ and/or Cl, 1,4-dimercaptoacetamidocyclohexane, 1,4-dimercaptoacetamido-9,10-anthraquinone, 1,5-dimercaptoacetamido-9,10-anthraquinone, 1,8-dimercaptoacetamidooctane, 1,4-dithiocarbamatobenzene or 1,4-dithiocarbamatocyclohexane, wherein the conductivity of the assembly is determined by the structure of the multifunctional linker molecule.

19. (New) The 1-, 2- or 3-dimensional assembly according to claim 18, wherein said nanostructured units are selected from the group consisting of nanoparticles, metals, semiconductors, core/shell semiconductor nanoparticles, nanowires, nanotubes, nanobelts and electrodes.

20. (New) The 1-, 2- or 3-dimensional assembly according to claim 18, wherein the multifunctional linker molecule is attached between two metal or semiconductor electrodes.

21. (New) The 1-, 2- or 3-dimensional assembly according to claim 18, wherein the assembly is in the form of interconnected nanostructured units.

22. (New) A method of manufacturing self-assembled electronic circuit elements, electrodes and metal coatings, comprising the step of utilizing the 1-, 2- or 3-dimensional assembly according to claim 18.